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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/022,022

12/13/2001

Peter V. Boesen

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2798

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MCKEE, VOORHEES & SEASE, P.L.C.  
801 GRAND AVENUE  
SUITE 3200  
DES MOINES, IA 50309-2721

EXAMINER

ARMSTRONG, ANGELA A

ART UNIT

PAPER NUMBER

2626

MAIL DATE

DELIVERY MODE

06/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/022,022

Applicant(s)

BOESEN, PETER V.

Examiner

Angela A. Armstrong

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 21-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1-13 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 2002/0010590) in view of Rueda (US Patent No. 6,157,727) and Aoki et al (US Patent No. 5,933,506).
2. Regarding claims 1, 2, 4-5, 8-9, 11-13, and 21-24, Lee teaches a method of voice communication comprising: selecting one of a plurality of microphones to detect a selected voice communication by a person other than the user (paragraphs 0023-0024, since the external microphone 101b is input to the recognizer); receiving a selected voice communication of a first language from the selected microphones (paragraph 0023); translating the selected voice communication from the first language to a second language by an intelligent control (113a), the second language different from the first to create a translated voice communication (paragraph 0025); transmitting communications using transmitters (paragraphs 0052-0065); and transducing the translated voice communication at a speaker (paragraph 0024).

Lee does not teach the earpiece having a housing in which the earpiece is adapted for being worn by the user. Rueda teaches a communication system including a hearing aid and a language translation system, and specifically teaches the hearing aid and the translation system can be combined into a portable unit which can be worn on the head of the user and also describes how the hearing aid is worn at the ear of the user (ITE BTE). Rueda teaches that such a system is advantageous in providing hearing aid users with foreign language translations. It

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would have been obvious to one of ordinary skill at the time of the invention to modify the system of Lee to provide an earpiece housing adapted for being worn by a user, as suggested by Reuda, for the purpose of providing a portable convenient unit to the user.

Lee does not teach an earpiece unit having a plurality of microphones. However, it was well known to provide an earpiece, which includes a plurality of microphones in a communication system, for the purpose of providing improved signal processing via background noise reduction and desired signal enhancement. Aoki discloses a transmitter-receiver having ear-piece type acoustic transducing parts, which provides for a microphone for picking up bone-conducted sound, a directional microphone for picking up air-conducted sound and an electro-acoustic transducer for transducing a received speech sound and automatically processed the speech signal in accordance with use environments to send speech of the best quality (col. 2, lines 38-51).

It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Lee to provide an earpiece having a plurality of microphones, as was well known in the art, for the purpose achieving improved signal processing and signal enhancement.

3. Regarding claim 3, Lee teaches transmitting the voice communication of a first language to a translation station and receiving the translated voice communication from the translation station (paragraphs 60-61).

4. Regarding claim 6, Lee teaches the second language is English (paragraph 61).

5. Regarding claim 7, Lee teaches first language is English and the second language is different from the first language (paragraph 62).

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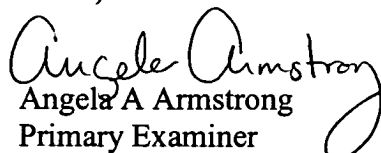
***Response to Arguments***

6. Applicant's arguments with respect to claims 1-13 and 21-24 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598. The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Angela A. Armstrong  
Primary Examiner  
Art Unit 2626

AAA  
October 2, 2006